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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,247	03/25/2004	Alan Tchochiev	MSFT122122	7234
26380 7590 12/11/2008 CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347				
EXAMINER WANG, BEN C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/809,247

Applicant(s)

TCHOCHIEV, ALAN

Examiner

BEN C. WANG

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-56 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 and 5-56 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. Applicant's amendment dated September 26, 2008, responding to the Office action mailed June 26, 2008 provided in the rejection of claims 1-56, wherein claims 1, 7, 12, 30, 53, and 55 have been amended, claim 4 is being canceled

Claims 1-3 and 5-56 remain pending in the application and which have been fully considered by the examiner.

Applicant's arguments with respect to claims rejection have been fully considered but are moot in view of the new grounds of rejection – see Tim Biernat (Biernat-2), Ceki Gülcü and PostgreSQL - arts made of record, as applied hereto.

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections – 35 USC § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tim Biernat (*Persistent Object ID Service – Part 1*, IBM, June 2, 2003, pp. 1-6) (hereinafter 'Biernat') in view of Sun (*Using the Timer Service*, Sun Microsystems, December 4, 2003, pp. 1-9) (hereinafter 'Sun'), Hibernate (*HIBERNATE – Relational Persistence for Idiomatic Java*, hibernate, October 13, 2003, pp. 1-123) (hereinafter 'Hibernate'), Tim Biernat (*Persistent Object ID Service – Part 2: Architecture and Design on the Server Side*, IBM, August, 2003, pp. 1-21) (hereinafter 'Biernat-2' - art made of record), and Ceki Gülcü (*Short Introduction to log4j*, March, 2002, pp. 1169) (hereinafter 'Gülcü' - art made of record)
4. **As to claim 1** (Currently Amended), Biernat discloses a computer-readable medium having a base generator class (e.g., P. 2, Fig. 1 – Initial class diagram design – PoidGenerator; P. 4, Fig. 4 - Detailed sequence diagram, element - PoidGenerator) stored thereon for use by developers to create generators to perform specific tasks, the base generator class comprising:

- a base generator class constructor for initializing a generator (e.g., P. 3, Sec. of "Implementation" – PoldGenerator Initialize(), 1st Para - ... some initialization will need to performed in the PoldGenerator ... which is instantiated in the initialization sequence, and loads the properties file ...);
- a generator properties class that provides incrementation capability, which allows the value of a generator property to vary during consecutive executions of a generator (e.g., Sec. of "Introduction", 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of "Design", 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs);
- a status indicator (e.g., Sec. of "Introduction", 3rd Para - ... employ standard J2EE ... Enterprise Java Beans (EJB) and Simple Object Access Protocol (SOAP) ...; Sec. of "Design", 2nd Para - ... can provide clients an easy to use in-process component, which will be responsible for service location and communication, and POID block management ...);

Further, Biernat discloses the ability to generate unique global identifiers for persistent objects and using standard J2EE and Web technologies, including EJBs and SOAP (e.g., Abstract) but does not explicitly disclose a schedule class.

However, in an analogous art of *Using the Timer Service*, Sun discloses a schedule class (e.g., Abstract, 1st Para - ... can schedule a timed notification to occur at a specific time, after a duration of time, or at timed intervals)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Sun into the Biernat's system to further provide a schedule class in the Biernat's system.

The motivation is that it would further enhance the Biernat's system by taking, advancing and/or incorporating Sun's system which offers significant advantages that the timer service of the EJB container enable you to schedule timed notifications for all types of enterprise beans as once suggested by Sun (e.g., Abstract, 1st Para)

Furthermore, Biernat discloses the ability to generate unique global identifiers for persistent objects (e.g., Abstract) and Sun discloses the timer service of the EJB container enable you to schedule timed notifications for all types of enterprise beans (e.g., Abstract, 1st Para); but both do not explicitly disclose a logging class; and wherein the logging class is used to verify the tasks performed by the generators.

However, in an analogous art of *Hibernate – Relational Persistence for Idiomatic Java*, Hibernate discloses a logging class; and wherein the logging class is used to verify the tasks performed by the generators (e.g., Sec. 2.7 – Logging, 1st Para - ... Hibernate logs various events using Apache commons-logging ...; 2nd Para - ... a lot of work has been put into making the Hibernate log as detailed as possible ... It is an essential troubleshooting device)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Hibernate into the Biernat-Sun's system to further provide a logging class; and wherein the logging class is used to verify the tasks performed by the generators in the Biernat-Sun's system.

The motivation is that it would further enhance the Biernat-Sun's system by taking, advancing and/or incorporating Hibernate's system which offers significant advantages that the as once suggested by Hibernate (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard MBean)

Furthermore, Biernat, Sun, and Hibernate do not explicitly disclose a status user interface (UI) for displaying the execution status of generators, the execution status of each generator including a description of the generator and the value of a generator property comprising a stream portion and a numerical portion, the numerical portion being incremented.

However, in an analogous art of *Persistent Object ID Service – Part 2: Architecture and Design on the Server Side*, Biernat-2 discloses a status user interface (UI) for displaying the execution status of generators, the execution status of each generator including a description of the generator (e.g., Figs. 6-9 and Fig. 13 – EJB to RDM top-down map) and the value of each property associated with the generator the value of a generator property comprising a stream portion (e.g., P. 4, 1st Bullet – Type: ... representing the type of the persistent object using its fully qualified class name ...) and

a numerical portion, the numerical portion being incremented (e.g., P. 4, 2nd Bullet – POID: a Java primitive long type that represents the last allocated object ID for the type)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Biernat-2 into the Biernat-Sun-Hibernate's system to further provide a status user interface (UI) for displaying the execution status of generators, the execution status of each generator including a description of the generator and the value of a generator property comprising a stream portion and a numerical portion, the numerical portion being incremented in the Biernat-Sun-Hibernate's system.

The motivation is that it would further enhance the Biernat-Sun-Hibernate's system by taking, advancing and/or incorporating Biernat-2's system which offers significant advantages that the overall system architecture, and the design and implementation of server side components as once suggested by Biernat-2 (e.g., Sec. of "Introduction")

Furthermore, Hibernate discloses Hibernate logs various events using Apache common-logging; the commons-logging service will direct output to Apache log4j (e.g., Sec. 2.7 of "Logging") but Biernat, Sun, Hibernate, and Biernat-2 do not explicitly disclose other limitations stated below.

However, in an analogous art of *Short Introduction to log4j*, Gülcü discloses recording an object generated by each generator, a time of the object generation, and generator properties used to generate the object (e.g., P. 13, Sec. of "Nested Diagnostic Contexts", 2nd Para – 3rd Para – a lighter technique to uniquely stamp each log request initiated from the same client interaction ...); the logging class providing a user a

capability to turn the logging class off (e.g., P. 15, Sec. of "Conclusions", 2nd Para - ... its manageability ... can be controlled with configuration files. They can be selectively enabled or disabled ...)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Gülcü into the Biernat-Sun-Hibernate- Biernat-2's system to further provide other limitations stated above in the Biernat-Sun-Hibernate-Biernat-2's system.

The motivation is that it would further enhance the Biernat-Sun-Hibernate-Biernat-2's system by taking, advancing and/or incorporating Gülcü's system which offers significant advantages that it allows the developer to control which log statements are output with arbitrary granularity; it is fully configurable at runtime using external configuration files as once suggested by Gülcü (e.g., Sec. of "Abstract")

5. **As to claim 2** (Previously Presented) (incorporating the rejection in claim 1), Biernat discloses the computer-readable medium wherein the generator properties class that provides incrementation capability includes a plurality of generator properties (e.g., Sec. of "Introduction", 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of "Design", 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs)

6. **As to claim 3** (Original) (incorporating the rejection in claim 2), Biernat discloses the computer-readable medium wherein said plurality of generator properties includes:

- a value of a generator property (e.g., P. 2, Fig. 1 – Initial class diagram design, element - Pold);
- a plurality of incrementation settings (e.g., P. 2, Fig. 1 – Initial class diagram design, element - PoldBlock); a default incrementor that changes the value of the generator property (e.g., P. 2, Fig. 1 – Initial class diagram design, element - PoldGenerator – getPold()); and

Hibernate discloses a default validator that validates the value of the generator property (e.g., Sec. 3.4 - Validatable)

7. **As to claim 5** (Previously Presented) (incorporating the rejection in claim 1), Biernat discloses the computer-readable medium wherein the schedule class comprises:

- a start condition under which the execution of a generator may be started (e.g., P. 3, PoldGenerator initialize(), 1st Para - ... which is instantiated in the initialization sequence, and loads the properties file ...);
- a recurrence condition under which the execution of a generator may recur;
- an end condition under which the execution of a generator stops (e.g., P. 4, Fig. 4 – Detailed sequence diagram, element PoldBlock – baseValue, blockSize, maxValue); and

- a dialog box that can be used to accept user input (e.g., P. 4, Fig. 4 – Detailed sequence diagram, element PoldBlock – baseValue, blockSize, maxValue)

8. **As to claim 6** (Previously Presented) (incorporating the rejection in claim 1), Hibernate discloses the computer-readable medium wherein the logging class enables the recording of the execution process of a generator (e.g., Sec. 2.7 – Logging, 1st Para - ... Hibernate logs various events using Apache commons-logging ...; 2nd Para - ... a lot of work has been put into making the Hibernate log as detailed as possible ... It is an essential troubleshooting device)

9. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hibernate in view of Kaoru Yoneyama (Pat. No. US 6,985,892 B2) (hereinafter 'Yoneyama'), and Biernat-2

10. **As to claim 7** (Currently Amended), Hibernate discloses a method of creating a generator, wherein the generator performs a specific task, comprising:

- creating a new generator class that inherits a base generator class (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface net.sf.hibernate.id.IdentifierGenerator ... some applications may choose to provide their own specialized implementations);
- creating a public default constructor for the new generator class that overrides the base generator class constructor (e.g., Sec. 4.1.4.1. Generator - ... all

generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ...

some applications may choose to provide their own specialized implementations);

- implementing a function in the new generator class to perform the specific task (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations);
- verifying the task based on properties of the generator (e.g., Sec. 3.4 - Validatable);

Furthermore, Hibernate discloses various generators with incrementation capability (Sec. 4.1.4.1. Generator; Sub-Sec. Increment) but does not explicitly disclose creating a file.

However, in an art of *Method and Apparatus for Producing a File Name in an Image Manipulating System Having a Memory Device in Which a File Name and a Second Train of Characters is Provided wherein a File Number is automatically Generated by Incrementing a File Number Previously Assigned and Stored in Memory*, Yoneyama discloses creating a file (e.g., Abstract ... a file generator ... increments the last stored file number and stores it in readiness for use to identify the next file to be created ...)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Yoneyama into the Hibernate's system to further provide creating a file in the Hibernate's system.

The motivation is that it would further enhance the Hibernate's system by taking, advancing and/or incorporating Yoneyama's system which offers significant advantages

that when a plurality of systems of the same kind are installed, since any of the systems is distinguished from another with the fourth character of a file name, the system can be differentiated from one to another as once suggested by Yoneyama (e.g., Col. 12, Lines 57-67)

Further, Hibernate and Yoneyama do not explicitly disclose other limitations stated below.

However, in an analogous art of *Persistent Object ID Service – Part 2: Architecture and Design on the Server Side*, Biernat-2 discloses accepting user-defined properties for the generator, the user-defined properties for the generator including incrementation settings for a property (e.g., Fig. 13 - EJB to RDM top-down map0

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Biernat-2 into the Hibernate-Yoneyama's system to further provide other limitations stated above in the Hibernate-Yoneyama's system.

The motivation is that it would further enhance the Hibernate-Yoneyama's system by taking, advancing and/or incorporating Biernat-2's system which offers significant advantages that the overall system architecture, and the design and implementation of server side components as once suggested by Biernat-2 (e.g., Sec. of "Introduction")

11. **As to claim 8** (Original) (incorporating the rejection in claim 7), Hibernate discloses the method wherein creating a public default constructor comprises:

- initializing the base generator class constructor with the name and the description of the generator (e.g., Sec. 3.1.2 – Implement a default constructor);
and
- defining the properties of the generator (e.g., Sec. 3.1.3 – Provide an identifier property)

12. **As to claim 9** (Original) (incorporating the rejection in claim 8), Hibernate discloses the method wherein defining properties for the generator comprises:

- (a) defining the name of a property (e.g., Sec. 3.1.3 – Provide an identifier property);
- (b) setting a default value for the property (e.g., Sec. 4.1.9 - property);
- (c) providing a description for the property (e.g., Sec. 4.1.9 - property);
- (d) specifying incrementation settings for the property (e.g., Sec. 4.1.4.1 – Generator, Sub-Sec. – increment);
- (e) creating a custom property incrementor, if applicable (e.g., Sec. 4.1.4.1 – Generator, 2nd Para – ... to provide their own specialized implementations ...)
- (f) creating a custom property validator, if applicable (e.g., Sec. 3.4 - Validatable);
and
- (g) repeating (a)-(f) for all properties of the generator.

13. **As to claim 10** (Original) (incorporating the rejection in claim 17), Hibernate discloses the method further comprising implementing a function to be executed before

each execution of a generator (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations)

14. **As to claim 11** (Original) (incorporating the rejection in claim 7), Hibernate discloses the method further comprising implementing a function to be executed after each execution of a generator (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations)

15. Claims 12-17, 19-26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hibernate in view of Kaoru Yoneyama (Pat. No. US 6,985,892 B2) (hereinafter 'Yoneyama'), PostgreSQL (*PostgreSQL 7.4.23 Documentation*) (hereinafter 'PostgreSQL' - art made of record)

16. **As to claim 12** (Currently Amended), Hibernate discloses a method of using a generator that performs a specific task, comprising:

- customizing settings of the generator (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations), the settings including incrementation settings that specify how the value of a generator property may vary between generated objects (e.g., Sec. 4.1.4.1 - generator, Sub-Sec. Increment);

- executing the generator with the customized settings (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations);
- verifying the task based on the settings of the generator (e.g., Sec. 3.4 - Validatable)

Furthermore, Hibernate discloses various generators with incrementation capability (Sec. 4.1.4.1. Generator; Sub-Sec. Increment) but does not explicitly disclose such as including at least creating a file, the generated object including a file.

However, in an art of *Method and Apparatus for Producing a File Name in an Image Manipulating System Having a Memory Device in Which a File Name and a Second Train of Characters is Provided wherein a File Number is automatically Generated by Incrementing a File Number Previously Assigned and Stored in Memory*, Yoneyama discloses such as including at least creating a file, the generated object including a file (e.g., Abstract ... a file generator ... increments the last stored file number and stores it in readiness for use to identify the next file to be created ...)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Yoneyama into the Hibernate's system to further provide such as including at least creating a file, the generated object including a file in the Hibernate's system.

The motivation is that it would further enhance the Hibernate s system by taking, advancing and/or incorporating Yoneyama's system which offers significant advantages that when a plurality of systems of the same kind are installed, since any of the systems

is distinguished from another with the fourth character of a file name, the system can be differentiated from one to another as once suggested by Yoneyama (e.g., Col. 12, Lines 57-67)

Furthermore, Hibernate and Yoneyama do not explicitly disclose other limitations stated below.

However, in an analogous art of *PostgreSQL 7.4.23 Documentation*, PostgreSQL discloses the incrementation setting including at least one of an "offset" setting and a "step" setting, the "offset" setting specifying a value by which the value of a generator property is incremented (e.g., 12, option "increment" - The optional clause INCREMENT By *increment* specifies which value is added to the current sequence value to create a new value), the "step" setting specifying a number of generated objects containing the value of a generator property with the same "offset" setting (e.g., P. 12, option "minvalue" - ... determines the minimum value a sequence can generate; option "maxvalue" - ... determines the maximum value for the sequence; Sec. of "Notes"; NOTE: Biernat-2 also disclose the "step" setting (e.g., P. 4, last Para - ... increment its POID value by blocksize and return the next value; P. 12, item 13))

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of PostgreSQL into the Hibernate-Yoneyama's system to further provide other limitations stated above in the Hibernate-Yoneyama's system.

The motivation is that it would further enhance the Hibernate-Yoneyama's system by taking, advancing and/or incorporating PostgreSQL's system which offers significant

advantages of providing options for sequence number generator as once suggested by PostgreSQL (e.g., P. 11, Sec. of "CREATE SEQUENCE")

17. **As to claim 13** (Previously Presented) (incorporating the rejection in claim 12), Hibernate discloses the method customizing the settings of the generator, is accomplished through a user interface (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard MBean)

18. **As to claim 14** (Previously Presented) (incorporating the rejection in claim 13), Hibernate discloses the method further comprising:

- starting an object generator user interface;
- selecting the generator; and
- customizing properties of the generator (e.g., Sec. 4.1.4.1 – Generator, 2nd Para – ... to provide their own specialized implementations ...)

19. **As to claim 15** (Previously Presented) (incorporating the rejection in claim 14), Hibernate does not explicitly disclose the method selecting a generator further comprising adding the generator from files containing one or more generators (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations)

20. **As to claim 16** (Original) (incorporating the rejection in claim 14), Hibernate discloses the method further comprising loading the settings of a generator from a file (e.g., Sec. 2.1 - Programmatic Configuration)

21. **As to claim 17** (Previously Presented) (incorporating the rejection in claim 14), Hibernate discloses the method wherein customizing the properties of the generator comprises:

- (a) selecting one property (e.g., Sec. 4.1.9 - property);
- (b) specifying a value of the one property (e.g., Sec. 4.1.9 - property);
- (c) specifying incrementation settings of the one property (e.g., Sec. 4.1.4.1 – Generator, Sub-Sec. – increment); and
- (d) repeating (a)-(c) until there are no more properties to be customized.

22. **As to claim 19** (Original) (incorporating the rejection in claim 14), Hibernate does not explicitly disclose the method further comprising setting logging options for executing the generator (e.g., Sec. 2.7 – Logging, 1st Para - ... Hibernate logs various events using Apache commons-logging ...; 2nd Para - ... a lot of work has been put into making the Hibernate log as detailed as possible ... It is an essential troubleshooting device)

23. **As to claim 20** (Original) (incorporating the rejection in claim 14), Hibernate discloses the method further comprising saving the settings of the generator (e.g., Sec. 2.1 – Programmatic Configuration)

24. **As to claim 21** (Previously Presented) (incorporating the rejection in claim 12), Hibernate discloses the method customizing the settings of a generator, is accomplished programmatically (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations)

25. **As to claim 22** (Previously Presented) (incorporating the rejection in claim 21), Hibernate discloses the method further comprising:

- creating a new instance of the generator (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations);
- setting a number of objects to be generated by the generator (e.g., Sec. 4.1.4.1 - generator, Sub-Sec. Increment); and
- customizing properties of the generator (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations)

26. **As to claim 23** (Previously Presented) (incorporating the rejection in claim 22), Hibernate discloses wherein customizing properties of the generator comprises:

- (a) setting values of the properties (e.g., 4.1.9 – property); and
- (b) specifying incrementation settings of the properties (e.g., Sec. 4.1.4.1 - generator, Sub-Sec. Increment)

27. **As to claim 24** (Original) (incorporating the rejection in claim 21), Hibernate discloses the method further comprising:

- creating a new instance of the generator (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations); and
- loading saved settings of the generator from a file (e.g., Sec. 17.2.1 – The config file)

28. **As to claim 25** (Original) (incorporating the rejection in claim 21), Hibernate discloses The method further comprising:

- creating a new instance of the generator (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations);
- loading saved settings of the generator from a file (e.g., Sec. 17.2.1 – The config file); and

- implementing a function to execute the generator asynchronously (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations)

29. **As to claim 26** (Original) (incorporating the rejection in claim 21), Bowman-Amuah discloses further comprising:

- creating a new instance of the generator (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations);
- loading saved settings of the generator from a file (e.g., Sec. 17.2.1 – The config file)
- displaying an object generation status UI; and
- adding the generator to the object generation status UI (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard MBean) and;

30. **As to claim 28** (Original) (incorporating the rejection in claim 12), Hibernate discloses the method further comprising executing the generator through a user interface (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard

MBean)

31. **As to claim 29** (Original) (incorporating the rejection in claim 12), Hibernate discloses executing the generator through a user interface, but does not explicitly disclose the method further comprising executing the generator programmatically (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations)

32. Claims 18 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hibernate in view of Yoneyama, PostgreSQL, and Sun

33. **As to claim 18** (Original) (incorporating the rejection in claim 14), Furthermore, Hibernate discloses various generators with incrementation capability (Sec. 4.1.4.1. Generator; Sub-Sec. Increment) but Hibernate, Yoneyama and PostgreSQL do not explicitly disclose method further comprising setting a schedule for executing the generator.

However, in an analogous art of *Using the Timer Service*, Sun discloses the method further comprising setting a schedule for executing the generator (e.g., Abstract, 1st Para - ... can schedule a timed notification to occur at a specific time, after a duration of time, or at timed intervals)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Sun into the Hibernate- Yoneyama- PostgreSQL's system to further provide a schedule class in the Hibernate-Yoneyama- PostgreSQL's system.

The motivation is that it would further enhance the Hibernate-Yoneyama- PostgreSQL's system by taking, advancing and/or incorporating Sun's system which offers significant advantages that the timer service of the EJB container enable you to schedule timed notifications for all types of enterprise beans as once suggested by Sun (e.g., Abstract, 1st Para)

34. **As to claim 27** (Original) (incorporating the rejection in claim 21), Hibernate discloses the method further comprising:

- creating a new instance of the generator (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations);
- loading saved settings of the generator from a file (e.g., . 17.2.1 – The config file); and
- displaying a logging dialog box that allows a user to specify logging options for executing the generator (e.g., Sec. 2.7 – Logging, 1st Para - ... Hibernate logs various events using Apache commons-logging ...; 2nd Para - ... a lot of work has

been put into making the Hibernate log as detailed as possible ... It is an essential troubleshooting device)

Furthermore, Hibernate discloses various generators with incrementation capability (Sec. 4.1.4.1. Generator; Sub-Sec. Increment) but Hibernate and Yoneyama do not explicitly disclose displaying a schedule dialog box that allows a user to specify a schedule for executing the generator.

However, in an analogous art of *Using the Timer Service*, Sun discloses displaying a schedule dialog box that allows a user to specify a schedule for executing the generator (e.g., Abstract, 1st Para - ... can schedule a timed notification to occur at a specific time, after a duration of time, or at timed intervals)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Sun into the Hibernate-Yoneyama's system to further provide displaying a schedule dialog box that allows a user to specify a schedule for executing the generator in the Hibernate-Yoneyama's system.

The motivation is that it would further enhance the Hibernate-Yoneyama's system by taking, advancing and/or incorporating Sun's system which offers significant advantages that the timer service of the EJB container enable you to schedule timed notifications for all types of enterprise beans as once suggested by Sun (e.g., Abstract, 1st Para)

35. Claims 30-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biernat in view of Hibernate and PostgreSQL

36. **As to claim 30** (Currently Amended), Biernat discloses a method for object generation using a base generator class, comprising:

- creating a generator that performs a specific task (e.g., P. 2, Fig. 1 – Initial class diagram design – element PoldGenerator; last Para – request an instance of PoldGenerator, then invoke getPold() on the instance, passing ...);
- customizing settings of the generator, that specify how the value of a generator property may vary between generated objects (e.g., Sec. of “Introduction”, 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of “Design”, 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs);
- executing the generator with the customized settings (e.g., Sec. of “Introduction”, 2nd Para - ... example use cases include creating account numbers of bank accounts, and generating identifiers for new customers ...);

Further, Biernat discloses the ability to generate unique global identifiers for persistent objects and using standard J2EE and Web technologies, including EJBs and SOAP (e.g., Abstract) but does not explicitly disclose verifying the task based on the settings of the generator;

However, in an analogous art of *Hibernate – Relational Persistence for Idiomatic Java*, Hibernate discloses verifying the task based on the settings of the generator (e.g., Sec. 3.4 - Validatable)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Hibernate into the Biernat's system to further provide verifying the task based on the settings of the generator in the Biernat's system.

The motivation is that it would further enhance the Biernat's system by taking, advancing and/or incorporating Hibernate's system which offers significant advantages that the as once suggested by Hibernate (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard MBean)

Furthermore, Biernat and Hibernate do not explicitly disclose other limitations stated below.

However, in an analogous art of *PostgreSQL 7.4.23 Documentation*, PostgreSQL discloses the incrementation setting including at least one of an "offset" setting and a "step" setting, the "offset" setting specifying a value by which the value of a generator property is incremented (e.g., 12, option "increment" - The optional clause INCREMENT By *increment* specifies which value is added to the current sequence value to create a new value), the "step" setting specifying a number of generated objects containing the value of a generator property with the same "offset" setting (e.g., P. 12, option "minvalue" - ... determines the minimum value a sequence can generate; option

"maxvalue" - ... determines the maximum value for the sequence; Sec. of "Notes";

NOTE: Biernat-2 also disclose the "step" setting (e.g., P. 4, last Para - ... increment its POID value by blocksize and return the next value; P. 12, item 13))

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of PostgreSQL into the Biernat-Hibernate's system to further provide other limitations stated above in the Biernat-Hibernate's system.

The motivation is that it would further enhance the Biernat-Hibernate's system by taking, advancing and/or incorporating PostgreSQL's system which offers significant advantages of providing options for sequence number generator as once suggested by PostgreSQL (e.g., P. 11, Sec. of "CREATE SEQUENCE")

37. **As to claim 31** (Original) (incorporating the rejection in claim 30), Hibernate discloses the method wherein creating a generator that performs a specific task comprises:

- creating a new generator class that inherits the base generator class (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ... some applications may choose to provide their own specialized implementations);
- creating a public default constructor for the new generator class that overrides the base generator class constructor (e.g., Sec. 4.1.4.1. Generator - ... all generators implement the interface `net.sf.hibernate.id.IdentifierGenerator` ...

some applications may choose to provide their own specialized implementations); and

- implementing a function in the new generator class to perform a specific task (e.g., Sec. 4.1.4.1. Generator - ... some applications may choose to provide their own specialized implementations).

38. **As to claim 32** (Original) (incorporating the rejection in claim 31), please refer to claim 8 as set forth accordingly.

39. **As to claim 33** (Previously Presented) (incorporating the rejection in claim 32), please refer to claim 9 as set forth accordingly.

40. **As to claim 34** (Previously Presented) (incorporating the rejection in claim 31), please refer to claim 10 as set forth accordingly.

41. **As to claim 35** (Previously Presented) (incorporating the rejection in claim 31), please refer to claim 11 as set forth accordingly.

42. **As to claim 36** (Original) (incorporating the rejection in claim 30), please refer to claim 13 as set forth accordingly.

43. **As to claim 37** (Previously Presented) (incorporating the rejection in claim 36), please refer to claim **14** as set forth accordingly.

44. **As to claim 38** (Previously Presented) (incorporating the rejection in claim 37), please refer to claim **15** as set forth accordingly.

45. **As to claim 39** (Original) (incorporating the rejection in claim 37), please refer to claim **16** as set forth accordingly.

46. **As to claim 40** (Previously Presented) (incorporating the rejection in claim 37), please refer to claim **17** as set forth accordingly.

47. **As to claim 41** (Original) (incorporating the rejection in claim 37), please refer to claim **18** as set forth accordingly.

48. **As to claim 42** (Original) (incorporating the rejection in claim 37), please refer to claim **19** as set forth accordingly.

49. **As to claim 43** (Original) (incorporating the rejection in claim 37), please refer to claim **20** as set forth accordingly.

50. **As to claim 44** (Previously Presented) (incorporating the rejection in claim 30), please refer to claim **21** as set forth accordingly.

51. **As to claim 45** (Previously Presented) (incorporating the rejection in claim 44), please refer to claim **22** as set forth accordingly.

52. **As to claim 46** (Previously Presented) (incorporating the rejection in claim 45), please refer to claim **23** as set forth accordingly.

53. **As to claim 47** (Original) (incorporating the rejection in claim 44), please refer to claim **24** as set forth accordingly.

54. **As to claim 48** (Original) (incorporating the rejection in claim 44), please refer to claim **25** as set forth accordingly.

55. **As to claim 49** (Original) (incorporating the rejection in claim 44), please refer to claim **26** as set forth accordingly.

56. **As to claim 50** (Original) (incorporating the rejection in claim 44), please refer to claim **27** as set forth accordingly.

57. **As to claim 51** (Original) (incorporating the rejection in claim 30), please refer to claim **28** as set forth accordingly.

58. **As to claim 52** (Original) (incorporating the rejection in claim 30), please refer to claim **29** as set forth accordingly.

59. **As to claim 53** (Currently Amended), Biernat discloses A method of varying a value of a property associated with a task, during consecutive executions of the task performed by a generator created to perform the task, comprising:

- allowing the value of the property to vary during consecutive executions of the task (e.g., Sec. of "Introduction", 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of "Design", 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs);
- creating settings associated with the property that control how the value may vary during consecutive executions of the task (e.g., P. 3, Sec. of "Implementation" – PoldGenerator Initialize(), 1st Para - ... some initialization will need to performed in the PoldGenerator ... which is instantiated in the initialization sequence, and loads the properties file ...; P. 4, Fig. 4 – Detailed sequence diagram, elements – PropertyManager, PoldBlock);

- allowing a user executing the task to customize the settings according to user preference (e.g., P. 4, Fig. 4 – Detailed sequence diagram, elements – PropertyManager, PoldBlock)

Further, Biernat discloses the ability to generate unique global identifiers for persistent objects and using standard J2EE and Web technologies, including EJBs and SOAP (e.g., Abstract) but does not explicitly disclose verifying the task based on the settings.

However, in an analogous art of *Hibernate – Relational Persistence for Idiomatic Java*, Hibernate discloses verifying the task based on the settings (e.g., Sec. 3.4 - Validatable)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Hibernate into the Biernat's system to further provide verifying the task based on the settings in the Biernat's system.

The motivation is that it would further enhance the Biernat's system by taking, advancing and/or incorporating Hibernate's system which offers significant advantages that the as once suggested by Hibernate (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard MBean)

Further, Biernat and Hibernate do not explicitly disclose other limitations stated below.

However, in an analogous art of *PostgreSQL 7.4.23 Documentation*, PostgreSQL discloses the settings including at least one of an "offset" setting and a "step" setting,

the "offset" setting specifying a value by which the value of a generator property is incremented (e.g., 12, option "increment" - The optional clause INCREMENT BY *increment* specifies which value is added to the current sequence value to create a new value), the "step" setting specifying a number of generated objects containing the value of a generator property with the same "offset" setting (e.g., P. 12, option "minvalue" - ... determines the minimum value a sequence can generate; option "maxvalue" - ... determines the maximum value for the sequence; Sec. of "Notes"; NOTE: Biernat-2 also disclose the "step" setting (e.g., P. 4, last Para - ... increment its POID value by blocksize and return the next value; P. 12, item 13))

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of PostgreSQL into the Biernat-Hibernate's system to further provide other limitations stated above in the Biernat-Hibernate's system.

The motivation is that it would further enhance the Biernat-Hibernate's system by taking, advancing and/or incorporating PostgreSQL's system which offers significant advantages of providing options for sequence number generator as once suggested by PostgreSQL (e.g., P. 11, Sec. of "CREATE SEQUENCE")

60. **As to claim 54** (Original) (incorporating the rejection in claim 53), Biernat discloses the method wherein the step of allowing the value of the property to vary during consecutive executions of the task further comprises:

- implementing a function that increments a property value according to the settings associated with the property that control how the value may vary during consecutive executions of the task (e.g., Sec. of "Introduction", 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of "Design", 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs)

61. **As to claim 55** (Currently Amended), Biernat discloses a computer-readable medium containing computer- executable instructions for a method of varying a value of a property associated with a task, during consecutive executions of the task performed by a generator created to perform the task, the method comprising:

- allowing the value of the property to vary during consecutive executions of the task (e.g., Sec. of "Introduction", 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of "Design", 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs);
- creating settings associated with the property that control how the value may vary during consecutive executions of the task (e.g., P. 3, Sec. of

"Implementation" – PoldGenerator Initialize(), 1st Para - ... some initialization will need to performed in the PoldGenerator ... which is instantiated in the initialization sequence, and loads the properties file ...; P. 4, Fig. 4 – Detailed sequence diagram, elements – PropertyManager, PoldBlock);

- allowing a user executing the task to customize the settings according to user preference (e.g., P. 4, Fig. 4 – Detailed sequence diagram, elements – PropertyManager, PoldBlock);

Further, Biernat discloses the ability to generate unique global identifiers for persistent objects and using standard J2EE and Web technologies, including EJBs and SOAP (e.g., Abstract) but does not explicitly disclose verifying the task based on the settings.

However, in an analogous art of *Hibernate – Relational Persistence for Idiomatic Java*, Hibernate discloses verifying the task based on the settings (e.g., Sec. 3.4 - Validatable)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Hibernate into the Biernat's system to further provide verifying the task based on the settings in the Biernat's system.

The motivation is that it would further enhance the Biernat's system by taking, advancing and/or incorporating Hibernate's system which offers significant advantages that the as once suggested by Hibernate (e.g., Sec. 1.3 – JMX Integration, 1st Para - ... JMX is the J2EE standard for management of java components. Hibernate may be managed via a JMX standard MBean)

Furthermore, Biernat and Hibernate do not explicitly disclose other limitations stated below.

However, in an analogous art of *PostgreSQL 7.4.23 Documentation*, PostgreSQL discloses the settings including at least one of an "offset" setting and a "step" setting, the "offset" setting specifying a value by which the value of a generator property is incremented (e.g., 12, option "increment" - The optional clause INCREMENT By *increment* specifies which value is added to the current sequence value to create a new value), the "step" setting specifying a number of generated objects containing the value of a generator property with the same "offset" setting (e.g., P. 12, option "minvalue" - ... determines the minimum value a sequence can generate; option "maxvalue" - ... determines the maximum value for the sequence; Sec. of "Notes"; NOTE: Biernat-2 also disclose the "step" setting (e.g., P. 4, last Para - ... increment its POID value by blocksize and return the next value; P. 12, item 13))

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of PostgreSQL into the Biernat-Hibernate's system to further provide other limitations stated above in the Biernat-Hibernate's system.

The motivation is that it would further enhance the Biernat-Hibernate's system by taking, advancing and/or incorporating PostgreSQL's system which offers significant advantages of providing options for sequence number generator as once suggested by PostgreSQL (e.g., P. 11, Sec. of "CREATE SEQUENCE")

62. **As to claim 56** (Original) (incorporating the rejection in claim 55), Biernat discloses the computer-readable medium wherein the step of allowing the value of the property to vary during consecutive executions of the task further comprises:

- implementing a function that increments a property value according to the settings associated with the property that control how the value may vary during consecutive executions of the task (e.g., Sec. of "Introduction", 2nd Para - ... the ability to generate unique global identifiers for persistent objects ... as persistent object IDs (POIDs). POIDs provide a long lived object with a global identity that transcends space and time ...; Sec. of "Design", 2nd Para - ... a singleton class named PoldGenerator, exposing a simple API, and responsible for managing blocks of POIDs)

Conclusion

63. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben C. Wang whose telephone number is 571-270-1240. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Ben C Wang/
Examiner, Art Unit 2192

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